

receive, as input on the user interface, a selection of a selected manufactured part, from a plurality of manufactured parts;

retrieve, from the server, test data for the plurality of manufactured parts;

normalize the retrieved test data against respective historical means and respective historical standard deviations to form normalized test data;

correlate the normalized test data for the selected manufactured part with the normalized test data for each of the other manufactured parts in the plurality to form a plurality of correlation values, each correlation value representing a degree of similarity between the selected manufactured part and a respective manufactured part of the plurality; and

display, on the user interface, at least one of the plurality of correlation values and at least one identifier of a respective manufactured part.

14. The machine-readable medium of claim **13**, wherein the operations further configure one or more processors or the machine to:

rank the plurality of manufactured parts in descending order of correlation value; and

display, on the user interface, identifiers of the plurality of manufactured parts in the ranked order.

15. The machine-readable medium of claim **14**, wherein the operations further configure one or more processors or the machine to:

designate highest-ranked manufactured parts as having the same failure mechanism as the selected manufactured part.

16. The machine-readable medium of claim **13**, wherein the user interface is further configured to receive a selection that specifies which physical properties measurements are included in the test data.

17. The machine-readable medium of claim **13**, wherein correlating the normalized test data for the selected manufactured part against the normalized test data for each of the other manufactured parts in the plurality to form a plurality of correlation values comprises:

performing a Pearson correlation between the normalized test data for the selected manufactured part and the normalized test data for each of the other manufactured parts in the plurality to form the plurality of correlation values, the plurality of correlation values being Pearson's correlation coefficients.

18. The machine-readable medium of claim **17**, wherein normalizing the retrieved test data against respective historical means and respective historical standard deviations to form normalized test data comprises, for each numerical value:

subtracting a respective historical mean from the numerical value, then dividing by a respective standard deviation to form the respective entry in the corresponding normalized test data.

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